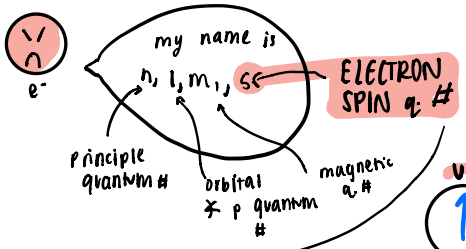
Quantum Entanglement for baddies

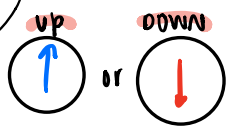
How Electrons Say Hi

- electron → electrons have 4 identifiers, that act like a name in the quantum field

summary: when subatomic particles become connected/"entangled," they remain connected & can change information, independent of distance.

each e⁻ in an atom has 4 different identifiers, called **quantum numbers**, to identify each specific e⁻ in atom





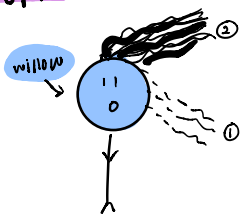
The electron spin q.# is most imp to quantum entanglement.

The E spin of an **electron can be in 2 states: up or down.**

These electrons, in the quantum field, are often in **SUPERPOSITION.**

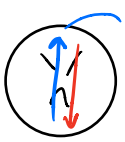
Superposition:

The electron is in an **overlapping state of up spin and down spin** @ a certain moment in time.



ex: If willow whips her hair back & forth ♫ and she put hair gel in it earlier, her hair flips between down(①) & up(②) positions continuously, in SUPERPOSITION

↳ Just like e⁻ flip between up spin & down spin continuously in SUPERPOSITION



Entanglement

when e⁻ become "entangled," each assumes the spin state, based on the spin state of its entangled pair...

This means that

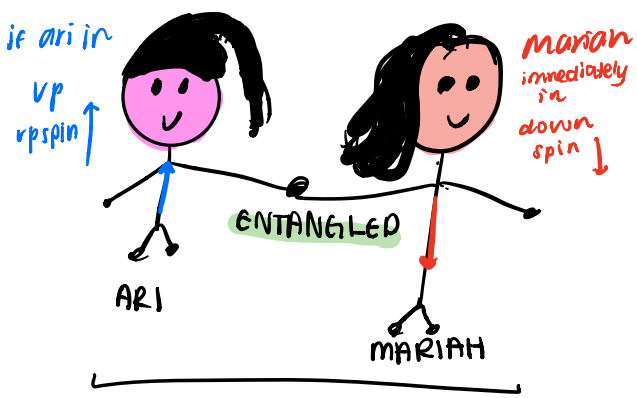
e⁻ = ari's bops & flops

If one e⁻ is in an upwards spin and the e⁻ are entangled, other is immediately in a downwards spin, by the state of its pair.

set list: Album- eternal sunshine
1. yes, and? - bop
2. mariah remix - flop

If ariana says her set list includes one BOP & one FLOP, and we KNOW yes, and? is a BOP, what does this say...

MARIAH REMIX IS A FLOP



this is now the yes, and? remix happened

Quantum cryptography & Quantum Key Distribution

The communication between quantum-entangled particles (for one in up-spin & other to be in down-spin) happens w/ no limit on DISTANCE, and at the speed of light (c).

(cryptography:

quantum protected system

If I were hacking ARI's website to search for the album release date

→ any interferences in the entangled particles' system would immediately alert her!

why?

quantum entanglement systems exchange information IMMEDIATELY.